REMARKS/ARGUMENTS

This amendment responds to the Office Action dated February 6, 2007.

The Examiner rejected claims 1-4 and 20-22 under 35 U..C. § 101 as being directed to non-statutory subject matter. Each of independent claims 1 and 22, from which the remaining rejected claims depend, have been amended to overcome the Examiner's rejection. Specifically, independent claim 1, as amended, recites the limitation of "rendering a pixel of said image on a display based upon said selected predetermined intensity threshold." Independent claim 20, as amended, claims an "encoder residing on an electronic device." Therefore, the applicant respectfully requests that the rejection of claims 1-4 and 20-22 under 35 U.S.C. § 101 be withdrawn.

The Examiner rejected claims 21 and 22 under 35 U.S.C. 112 for reciting "the apparatus of claim 20" when claim 20 claims an "encoder." Although the applicant considers an "encoder" to be an apparatus, each of the rejected claims has been amended to recite the "encoder" of claim 20. Therefore, the applicant requests that the rejection of claims 21 and 22 under 35 U.S.C. § 112 be withdrawn.

The Examiner rejected claim 20 under 35 U.S.C. § 102(b) as being anticipated by Smith, U.S. Patent No. 5,633,729. Claim 20 recites the limitation of "a threshold selection unit selecting one of a plurality of predetermined threshold intensities for said selected threshold unit in response to at least one of said accumulated errors of said current pixel and a pixel neighboring said current pixel." This limitation is not disclosed by Smith. That reference discusses a dithering technique used in digital halftoning whereby an image pixel of a given intensity is represented on a display incapable of displaying a pixel of that intensity, by instead dithering the image pixel over a two dimensional m x n area of sub-pixels. In this technique, each sub-pixel in the m x n region corresponding to the single image pixel has a corresponding threshold intensity values. Each threshold intensity value in the array is compared to the input pixel intensity; any threshold in the array greater than the pixel intensity gets a dot laid down at the corresponding sub-pixel location, and any threshold less than the pixel intensity has no dot laid down at the corresponding sub-pixel location. The respective intensity threshold values are selected so that the totality of the sub-pixels will appear to a viewer as being of the same

intensity of the input image pixel, even though the display never produces any one pixel of that intensity.

This method fails to disclose the claimed step of "a threshold selection unit *selecting* one of a plurality of predetermined threshold intensities for said selected threshold unit *in response to* at least one of said accumulated errors of said current pixel and a pixel neighboring said current pixel." Since *every* threshold in the sub-pixel array is compared to the input pixel, in order, so as to determine the pattern of sub-pixel dots that best represent the intensity of the input image pixel, selection of any one threshold is not based on *anything*, let alone the recited "at least one of said accumulated errors of said current pixel and a pixel neighboring said current pixel."

The applicant further notes that the cited reference discloses a method for *calculating* appropriate thresholds in a manner that minimizes the quantization error inherent in digitally representing an image. The claim limitation recited above, however, requires the selection of a "predetermined" threshold intensity, i.e. it does not read on a method of using a formula to calculate thresholds to use in Smith's dithering method.

In any event, the quantization error minimized by the threshold calculation method is not an "accumulated error subject to recalculation pixel-by-pixel." In any event, the applicant has further amended claim 20 by specifying that the accumulated error is "based on at least one respective variance between a rendered intensity of a pixel and a quantized measured intensity of a corresponding pixel of a contone image to be displayed." A quantization error is the difference between the quantized intensity of a pixel from the actual value prior to quantization.

For each of these reasons, claim 20 patentably distinguishes over the cited prior art. The applicant therefore respectfully requests that the rejection of this claim be withdrawn.

The Examiner rejected claims 1-18 and 22 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Smith as modified by Ostromoukov, U.S. Patent No. 6,356,362. The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Smith as modified by Ostromoukov and Harrington, U.S. Patent No. 6,072,591. The Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Smith as modified by Zlotnik, U.S. Patent No. 6,351,566. Claims 21 and 22 depend from independent claim 20, and are patentable over the cited combination for the same

reasons as claim 20, because the Examiner's obviousness rejection of these dependent claims depends on Smith anticipating all limitations of that independent claim.

Similarly, independent claims 1, 5, and 12 as amended distinguish over Smith for the same reasons as does independent claim 20, hence these claims as well as their respective dependent claims 2-4, 6-11, and 13-19 distinguish over the cited combinations all relying upon Smith disclosing the limitations of the independent claims. Therefore the applicant respectfully requests that the respective rejections of claims 1-19, 21, and 22 under 35 U.S.C. § 103(a) be withdrawn.

In view of the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of claims 1-22.

Respectfully submitted

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